

WHAT IS CLAIMED IS:

1. A resin solution used for preparing resin-coated steel sheet for a fuel tank of an automobile comprising: a main resin solution selected from epoxy resin, urethan resin and phenoxy resin; melamine resin; colloidal silica; tefron-based wax; and at least one plate-type metallic powder selected from Al, Zn, Mn, Co, Ni, Sn and SnO_2 .
2. The resin solution of claim 1, wherein said main resin solution is water-soluble phenoxy resin having a number average molecular weight of 25,000 to 50,000;
- said melamine resin is added in the amount of 2 to 15 phr on the basis of said main solution;
- said colloidal silica is added in the amount of 10 to 20 phr on the basis of said main solution;
- said tefron-based wax is added in the amount of 2 to 10 phr on the basis of said main solution; and
- said metallic powder is added in the amount of 5 to 70 phr on the basis of said main solution.
3. The resin solution of claim 2, wherein said tefron-based wax has a particle size of $0.1 - 3 \mu\text{m}$.
4. The resin solution of claim 3, wherein said metallic powder has a particle size of $0.5 - 5 \mu\text{m}$.
5. A method of fabricating resin-coated steel sheet for a fuel tank of an automobile comprising the steps of:
- coating a resin solution comprising a main resin solution of phenoxy

resin having a number average molecular weight of 25,000 to 50,000; 2 to 15 phr of melamine resin on the basis of said main solution; 10 to 20 phr of colloidal silica on the basis of said main solution; 2 to 10 phr of tefron-based wax on the basis of said main solution; and 5 to 70 phr of at least one plate-type metallic powder selected from Al, Zn, Mn, Co, Ni, Sn and SnO; and

*Sub A VI
Coat*

baking drying said resin-coated steel sheet at 140-250 °C.

Sub B1

6. The method of fabricating resin-coated steel sheet of claim 5, wherein thickness of said resin coating is 1-10 μm based on dried coating thickness.

Sub A II

7. The method of fabricating resin-coated steel sheet of claim 6, wherein the particle size of tefron-based wax of said resin solution is 0.1 - 3 μm .

Sub B1

8. The method of fabricating resin-coated steel sheet of claim 7, wherein the particle size of metallic powder of said resin solution is 0.5 - 5 μm .

9. A resin-coated steel sheet for a fuel tank of an automobile comprising a main resin solution of water-soluble phenoxy resin having a number average molecular weight of 25,000 to 50,000;

Sub A II

15 2 to 15 phr of melamine resin on the basis of said main solution; 10 to 20 phr of colloidal silica on the basis of said main solution; 2 to 10 phr of tefron-based wax on the basis of said main solution; and 5 to 70 phr of at least one of metallic powder selected from Al, Zn, Mn,

20 Co, Ni, Sn and SnO on the basis of said main solution and with 0.5 - 5 μm of particle size, said resin solution coated in the thickness of 1-10 μm based on dried coating thickness.